

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

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179 Queen Victoria Street
London EC4V 4EL
GRANDE BRETAGNE

PCT

File 78320/001

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

2 SEP 2004

Frank B. Dehn & Co.
RECEIVED

(PCT Rule 71.1)

ANSD

Date of mailing
(day/month/year)

31.08.2004

Applicant's or agent's file reference
3.78320.001

IMPORTANT NOTIFICATION

International application No.
PCT/GB 03/03223

International filing date (day/month/year)
29.07.2003

Priority date (day/month/year)
29.07.2002

Applicant

BOREALIS TECHNOLOGY OY et al

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international
preliminary examining authority:



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Fax: +49 89 2399 - 4465

Authorized Officer

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

Applicant's or agent's file reference 3.78320/001	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/GB 03/03223	International filing date (<i>day/month/year</i>) 29.07.2003	Priority date (<i>day/month/year</i>) 29.07.2002
International Patent Classification (IPC) or both national classification and IPC C08L23/04		
Applicant BOREALIS TECHNOLOGY OY et al		
1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 4 sheets, including this cover sheet. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of sheets.		
3. This report contains indications relating to the following items: <div style="margin-left: 20px;"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application </div>		
Date of submission of the demand 02.02.2004	Date of completion of this report 31.08.2004	
Name and mailing address of the international preliminary examining authority: <div style="margin-left: 20px;">  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 </div>	Authorized Officer Van Golde, L Telephone No. +49 89 2399-8521 <div style="text-align: right;">  </div>	

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB 03/03223

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17):*

Description, Pages

1-17 as published

Claims, Numbers

1-25 as published

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB 03/03223

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-25
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-25
Industrial applicability (IA)	Yes: Claims	1-25
	No: Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB 03/03223

- 1.1 The subject matter of the claims is directed to a shrink film comprising a particular polyethylene film and not consisting of a particular polyethylene film.
- 1.2 The claimed subject matter therefore encloses a multi layer shrink film comprising said particular polyethylene film as a first layer and a biaxially oriented polypropylene or ethylene polymer as a second layer.
- 2.1 D1 teaches in the parts cited in the ISR all features of the present Claim 1 but for the thickness of the film.
- 2.2 A thickness of 5 to 500 micrometers is normal for a polymer film like the one now claimed.
- 2.3 Thus D1 takes away the inventive step of at least the subject matter of the present Claim 1.
- 2.4 In this respect it should be noted that according to page 8, line 34 to page 9, line 2 of D1 Figure 27 of D1 describes only 1 of the 2 loop reactors used in its Example 2.
- 3.1 The subject matter of the claims 2 to 25 adds nothing inventive to the subject matter of Claim 1.
- 3.2 Therefore the subject matter of the Claims 2 to 25 lacks an inventive step as long as the Applicant did not show that this subject matter causes an unexpected technical effect.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 03/03223

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C08L23/04 C08L23/08 C08F297/08		
According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 C08L C08F		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, PAJ		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 03902 A (CHUM PAK WING STEVE ; SEHANOBIKH KALYAN (US); DOW CHEMICAL CO (US);) 28 January 1999 (1999-01-28) page 25, line 26; example 2; tables 1,4,5	1
A	EP 0 404 368 A (UNIPLAST IND INC) 27 December 1990 (1990-12-27) the whole document	1-25
A	GB 2 097 324 A (DU PONT) 3 November 1982 (1982-11-03) the whole document	1-25
<input type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
* Special categories of cited documents : *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. *G* document member of the same patent family		
Date of the actual completion of the international search 25 November 2003		Date of mailing of the international search report 02/12/2003
Name and mailing address of the ISA European Patent Office, P.B. 5816 Patentlaan 2 NL - 2280 HV Rijswijk Tel (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer Van Golde, L

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 03/03223

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9903902	A	28-01-1999	AT 223445 T 15-09-2002
			AU 744972 B2 07-03-2002
			AU 8286298 A 10-02-1999
			BR 9810771 A 30-10-2001
			CN 1265119 T 30-08-2000
			DE 69807702 D1 10-10-2002
			DE 69807702 T2 02-01-2003
			EP 0996651 A1 03-05-2000
			ES 2178232 T3 16-12-2002
			JP 2001512147 T 21-08-2001
			NO 20000279 A 20-03-2000
			PL 338511 A1 06-11-2000
			TR 200000180 T2 21-06-2000
			WO 9903902 A1 28-01-1999
			US 6319989 B1 20-11-2001
			US 6451916 B1 17-09-2002
			ZA 9806434 A 20-01-2000
			HU 0003291 A2 28-12-2000
EP 0404368	A	27-12-1990	EP 0404368 A2 27-12-1990
			PT 94246 A 08-02-1991
GB 2097324	A	03-11-1982	BE 892927 A1 22-10-1982
			CA 1174423 A1 18-09-1984
			DE 3215120 A1 09-12-1982
			FR 2504537 A1 29-10-1982
			IT 1151736 B 24-12-1986
			JP 1688905 C 11-08-1992
			JP 3054048 B 19-08-1991
			JP 57181828 A 09-11-1982
			NL 8201675 A ,C 16-11-1982
			US 4597920 A 01-07-1986